In the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1-74. (canceled)

75. (Currently Amended) A method for ~~use in~~ controlling the processing of components ~~that are~~ involved in *in vitro* fertilization (IVF), ~~the method~~ comprising:

defining a matching set of two or more components to be involved in a common IVF process;

[[-]]assigning <u>the two or more components</u> ~~each component~~ with a unique machine readable identification mark;

[[-]]providing ~~on each component~~ the unique machine readable identification mark assigned to <u>the two or more components on a surface of the two or more components</u> ~~said component~~; ~~and~~

<u>generating photographic images of each of the unique machine readable identification marks assigned to the two or more components;</u>

[[-]]reading the <u>unique machine readable</u> identification mark on each <u>of the two or more components simultaneously;</u> ~~component,~~

generating data indicative thereof; and

analyzing the ~~generated~~ data to determine whether <u>the unique machine readable</u>

<u>identification mark on each of the two or more</u> ~~identification marks of said~~ components

belong to ~~said~~ <u>the</u> matching set ~~or not~~.

76. (Currently Amended) The method of claim 75, <u>wherein at least one of the</u> two or more

components <u>is</u> ~~to be involved in the IVF process include at least one component~~ selected

from [[a]] <u>the</u> group consisting of a sperm donor entity, a sperm entity, an ova donor entity,

an ova entity, an oocyte entity, a fertilized egg entity, an embryo entity, a recipient entity,

holder entities, physicians, technicians<u>,</u> ~~and~~ corresponding records [[or]] <u>and</u> data files.

77. (Currently Amended) The method of claim 75, wherein <u>the</u> ~~said~~ matching set of two <u>or</u>

<u>more</u> components includes an embryo entity and a recipient entity.

78. (Currently Amended) The method of claim 75, wherein <u>the</u> ~~said~~ matching set of two <u>or</u>

<u>more</u> components <u>comprises</u> ~~includes~~ a sperm entity and an oocyte entity.

79. (Currently Amended) The method of claim 76, wherein the <u>unique machine readable</u>

identification mark is an image readable mark.

80. (Currently Amended) The method of claim 75, wherein the <u>unique machine readable</u>

identification mark is readable by optically scanning the mark.

81. (Currently Amended) The method of claim 75, wherein the <u>unique machine readable</u> identification mark is <u>a</u> barcode.

82. (Currently Amended) The method of claim 75, wherein ~~said~~ providing [[of]] the providing ~~on each component~~ <u>the unique machine readable</u> identification mark <u>assigned to the two or more components on a surface of the two or more components</u> comprises attaching to the component a label carrying said identification mark.

83. (Currently Amended) The method of claim 75, wherein at least one <u>of the two or more components</u> ~~entity~~ is within a holder and ~~said~~ providing of the <u>unique machine readable</u> identification mark <u>further</u> comprises attaching ~~to the holder~~ a label carrying <u>the</u> ~~said~~ identification mark <u>to the holder</u>.

84. (Currently Amended) The method of claim <u>76</u> [[75]], wherein ~~said~~ <u>the at least one of the two or more components is a holder entity and</u> providing of the <u>unique machine readable</u> identification mark on the holder <u>entity</u> comprises printing ~~said~~ <u>the unique machine readable</u> identification mark onto the holder <u>entity</u>.

85. (Currently Amended) The method of claim 75, wherein <u>the</u> ~~said~~ matching set of components <u>comprise</u> ~~includes~~ a biological entity and a corresponding record or file.

86. (Currently Amended) The method of claim 75, wherein said matching set of ~~components includes~~ <u>comprise</u> a biological entity and a holder.

87. (Currently Amended) The method of claim 75, wherein the unique machine readable identification mark assigned to each <u>of the two or more components in</u> ~~component of~~ a matching set is different.

88. (Currently Amended) The method of claim 75, wherein the unique machine readable identification <u>mark</u> ~~marks~~ assigned to <u>each of</u> the <u>two or more</u> components of a matching set are the same.

89. (Withdrawn) A system for use in controlling the processing of biological entities, the system comprising:

 - a support assembly for supporting at least one holder containing biological entities;

 - an optical device operable to acquire an image of the holder and generating data indicative of at least an identification mark provided on the holder;

 -a control system connectable to said optical system and operable to actuate the image acquisition and to analyze the data indicative of the acquired images, the control system having a memory utility for storing reference data representative of matching sets of biological entities' associated identification marks, and a processing utility preprogrammed to be response of said data indicative of the acquired images to analyze

said data utilizing said reference data and identify whether the biological entities in at least

two holders relate to a matching set or not.

90. (Withdrawn) A system for use in controlling the processing of biological entities, the

system comprising:

- a supporting stage for supporting at least one holders containing a biological entity;

- an incubator unit for maintaining the biological entities under predetermined

environmental conditions.

- an optical monitoring system operable to acquire images of the entities; a drive

assembly operable to provide a desired relative displacement between said support stage

at least a lens arrangement of said optical system, so as to enable bringing a selected

holder to an imaging position.

91. (New) A method for controlling the processing of components involved in *in vitro* fertilization (IVF), comprising:

defining a matching set of two or more components to be involved in a common IVF process;

assigning the two or more components with a unique machine readable identification mark;

providing the unique machine readable identification mark assigned to the two or more components on a surface of the two or more components; and

generating photographic images of each of the unique machine readable identification marks assigned to the two or more components;

reading the unique machine readable identification mark on each of the two or more components;

generating data indicative thereof; and

analyzing the data to determine whether the unique machine readable identification mark on each of the two or more components belong to the matching set.